

Claims:

1. (Currently amended) A slurry for chemical mechanical polishing (CMP), comprising:
a bulk solution including at least one additive selected from the group consisting of an oxidizer, a selective adsorption additive, and a salt, and;
a plurality of nanoporous comprising particles.
2. (Currently amended) The slurry of claim 1, ~~further comprising at least one selective adsorption additive, wherein said additive comprises said selective adsorption additive is in a concentration of from 6 to 1,000 critical micelle concentration (CMC) when said selective adsorption additive is non-ionic and from 1 to 1,000 CMC when said selective adsorption additive is zwitterionic, anionic or cationic, said selective adsorption additive self-assembling in said bulk solution.~~
3. (Currently amended) The slurry of claim 2, wherein said selective adsorption is in a concentration of from 6 to 1,000 critical micelle concentration (CMC) when said selective adsorption additive is non-ionic and from 1 to 1,000 CMC when said selective adsorption additive is zwitterionic, anionic or cationic, said selective adsorption additive self-assembling in said bulk solution comprises at least one cationic, anionic or zwitterionic surfactant, wherein a minimum concentration of said surfactant is 6 CMC.
4. (Currently amended) The slurry of claim 1, wherein said selective adsorption additive comprises at least one cationic, anionic or zwitterionic surfactant, wherein a minimum

~~concentration of said surfactant is 6 CMC a pore size of said nanoporous comprising particles ranges from 0.21 nm to 30 nm.~~

5. (Previously presented) The slurry of claim 1, wherein said plurality of nanoporous comprising particles comprise nanosize nanoporous particles.

6. (Previously presented) The slurry of claim 5, wherein said nanosize nanoporous particles comprise nanoporous cores coated with a solid material coating or first core material coated with a second material, said second material being a nanoporous coating.

7. (Cancelled)

8. (Previously presented) The slurry of claim 1, further comprising at least one of a species selected from the group consisting of a polyhalide ion, I₂, Br₂ and F₂.

9. (Previously presented) The slurry of claim 1, wherein an average particle size of said nanosize nanoporous comprising particles is less than 500 nm.

10. (Previously presented) The slurry of claim 9, wherein said average particle size is from 200 to 500 nm.

11-16. (Cancelled)

17. (Previously presented) The slurry of claim 1, wherein a porosity of said nanoporous particles is in a range from 10 to 60 %.

18. (Cancelled)

19. (Previously presented) The slurry of claim 1, further comprising a passivating additive, wherein said passivating additive comprises at least one selected from the group consisting of benzotriazole (BTA), tolyltriazole (TTA), imidazole, thiols, mercaptans, oxalic acid, sodium hexanoate and carboxylic acid.

20. (Original) The slurry of claim 1, further comprising at least one complexing agent.

21. (Original) The slurry of claim 20, wherein said complexing agent comprises at least one selected from the group consisting of acetic acid, citric acid, tartaric acid and succinic acid.

22. (Previously presented) The slurry of claim 2, wherein said selective adsorption additive comprises a mixture of at least one anionic surfactant and at least one cationic or zwitterionic surfactant.

23. (Previously presented) The slurry of claim 2, wherein said selective adsorption additive comprises at least one surfactant selected from the group consisting of SAS, SDS, CTAB, and CTAC octylphenol ethylene oxide condensate, polyoxyethylene sorbitan monooleate, and a water soluble copolymer of an average molecular weight of approximately

15,000 consisting of a-olefins and dicarboxylic acids, partially esterified with an ethoxilated alcohol.

24. (Previously presented) The slurry of claim 2, wherein said selective adsorption additive comprises CTAB or CTAC, and said first solid material comprises silica.

25. (Original) The slurry of claim 24, wherein said CTAB comprises C₁₂TAB.

26. (Currently amended) The slurry of claim 25, ~~further comprising an~~ wherein said oxidizer is selected from the group consisting of hydrogen peroxide, potassium ferrocyanide, potassium iodate, and perchlorates.

27 - 28. (Cancelled)

29. (Previously presented) The slurry of claim 2, wherein said selective adsorption additive comprises at least one polymer.

30. (Original) The slurry of claim 29, wherein said polymer is at least one selected from the group consisting of polyethylene oxide (PEO), polyacrylic acid (PAA), polyacryamide (PAM), polyvinylalcohol (PVA) and polyalkylamine (PAH).

31. Cancelled.

32. (Currently amended) The slurry of claim ~~1~~ 31, wherein said salt is at least one selected from the group consisting of chlorides, nitrates and ammonium-based salts.

33. (Original) The slurry of claim 1, wherein a pH of said slurry is from 6 to 13.

34. (Original) The slurry of claim 1, wherein a pH of said slurry is from 8 to 11.

35. (Previously presented) The slurry of claim 1, wherein a concentration of said composite particles in said slurry is from approximately 1% to 40% by weight.

36. Cancelled.

37. (Currently amended) The slurry of claim ~~1~~ 36, wherein said oxidizer is at least one selected from the group consisting of hydrogen peroxide, potassium ferrocyanide, potassium iodate and perchlorates.

38-71. (Cancelled)

72. (New) The slurry of claim 1, wherein a pH of said slurry is from 1 to 6.

73. (New) A slurry for chemical mechanical polishing (CMP), comprising:
a bulk solution, said bulk solution being in a pH range of 1 to 6 or 8 to 13, and
a plurality of nanoporous comprising particles.

74. (New) The slurry of claim 73, further comprising at least one additive selected from the group consisting of an oxidizer, a selective adsorption additive, and a salt.